

DETAILED ACTION

Acknowledgement of Receipt/Status of Claims

This Office Action is in response to the amendment filed July 25, 2011. Claims 1-63 are pending in the application. Claims 60-63 are newly added. Claims 16-18, 22, 24-26 and 46-47 have been withdrawn as being directed to a non-elected invention. Claims 1-15, 19-21, 23, 27-45 and 48-63 are being examined for patentability.

Maintained Rejections

Applicant's arguments filed July 25, 2011 are acknowledged and have been fully considered.

The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application. The rejection of claims 1-15, 19-21, 23, 27-45 and 48-59 under 35 U.S.C. 103(a) as being unpatentable over Lang et al. (US Patent 3,162,575) in view of Duffey et al. (3,826,232), Hagarty (US Patent 5,094,853), Emerson (US Patent 6,124,275) and Greene (US 4,473,582) **is maintained**.

Claims 1-15,19-21,23,27-45 and 48-59 remain rejected and claims 60-63 are newly rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al. (US Patent 3,162,575) in view of Duffey et al. (3,826,232), Hagarty (US Patent 5,094,853), Emerson (US Patent 6,124,275) and Greene (US 4,473,582).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Applicant's Invention

Applicant is claiming a solid stick insecticidal composition comprising a base, an insecticide and at least 60 wt% food materials, the composition having a penetration hardness of from 0.1 to 5mm.

Determination of the scope and the content of the prior art (MPEP 2141.01)

Lang et al. teach a method of controlling face flies on livestock comprising applying a composition that includes an insecticide that is admixed with a carrier material formed of a combination of microcrystalline wax (base material of instant application) and a medium viscosity oil (emulsifying agent of instant application). The composition is preferably formed into a solid elongated stick which is applied to the animals face by rubbing one end of the stick across the face of the animal. The insecticide bar also contains an attractant in combination with the insecticide and should

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include .25- 1.25% active ingredient, from 40-80% microcrystalline wax, 10-60% medium viscosity oil and 0 to 50% attractant (food material of instant application, see column 2, lines 15-25, 36-54 and 64-69).

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

One difference between the invention of the instant application and that of Lang et al. is that Lang et al. do not expressly teach the use of 1 to 200 ppm (i.e., 0.0001-0.02%) human taste deterrent and a colorant. However, pesticidal compositions comprising 1 to 200 ppm (i.e., 0.0001-0.02%) human taste deterrent and a colorant were known in the prior art. For example, Duffey et al. teach a pest control composition in a solid stick that comprises coloring agent and a bitter tasting agent such as denatonium benzoate in an amount of 0.0-0.1% (see column 3, line 64 and column 4, lines 25-37).

Another difference between the invention of the instant application and that of Lang et al. is that Lang et al. do not expressly teach the use of chlorpyrifos as the active insecticidal agent and honey as the attractant used in a method of controlling cockroaches. However, pesticidal compositions comprising chlorpyrifos as that active insecticidal agent and honey as the attractant used in a method of controlling cockroaches was known in the prior art. For example, Hagarty teaches an

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artropodically-active composition comprising honey (column 4, lines 40-52) and chlorpyrifos (column 5, line 46) which is used to control cockroaches.

A third difference between the invention of the instant application and that of Lang et al. is that Lang et al. do not expressly teach the use of 0.0001-10% preservative and 0.001-10% antioxidant. However, pesticidal compositions comprising 0.0001-10% preservative and 0.001-10% antioxidant was known in the prior art. For example, Emerson teaches a method for controlling a pest population such as cockroaches using a composition comprising 0.01-10% sorbic acid, propylparaben (preservative component), butylated hydroxyanisole and butylated hydroxytoluene (antioxidant component, column 8, lines 31-55).

A fourth difference between the invention of the instant application and that of Lang et al. is that Lang et al. do not expressly teach an insect control product comprising a solid stick insecticidal composition and a package (limitation of instant claims 50-56) and an application method which comprises drawing the stick along the hard surface (limitation of instant claims 44 and 45). However, insect control products comprising a solid stick insecticidal composition and a package wherein said solid stick is used in a method which comprises drawing the stick along the hard surface was known in the prior art. For example, Greene teaches an insecticidal package for applying a thin film of water-insoluble insecticide to a household surface including a container and insecticidal stick (abstract). The container has parallel side walls and an end opening, a cap means cooperating with the container walls to provide a sealed closure for the opening, and means for propelling the insecticidal stick through the

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opening for application to a solid surface (claim 2 of Greene). Greene teaches that while holding the insecticidal applicator, the insecticidal stick is rubbed against a solid surface to form a thin, uniform, transparent film of liquid solvent containing insecticide (column 2, lines 65-68). With regard to the "wrapping including a tear line or point of weakness at a location or one or more intervals along the length of the wrapping" and "the package or wrapping comprises a label", this is merely judicious selection of wrapping/packaging used to protect insecticidal stick formulation by one of ordinary skill in the art in the absence of evidence to the contrary.

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

The teachings of Lang et al. and Duffey et al. are directed to solid stick insecticidal compositions. Therefore, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to combine the teachings Lang et al. and Duffey et al. to arrive at a solid stick insecticidal composition comprising 1 to 200 ppm (i.e., 0.0001-0.02%) human taste deterrent and a colorant. Duffey et al. teach that the advantage of having a bitter tasting ingredient is that it will tend to prevent any licking off of the composition by another animal and will also be a deterrent to tasting by children (column 4, lines 25-30). Further, Duffey et al. teach that coloring agents are conventional ingredients which are normally incorporated into pesticidal formulations

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(column 4, lines 33-37). One would have been motivated to make this combination in order to receive the expected benefit of having a solid stick insecticidal composition that has a deterrent to tasting by children as well as prevent any licking off of the composition by an animal. Therefore, given the state of the art as evidenced by the teachings of the cited references, and absent any evidence to the contrary, there would have been a reasonable expectation of success in combining the teachings of the cited references to form a solid stick insecticidal composition.

The teachings of Lang et al. Hagarty are directed to insecticidal compositions. Therefore, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to combine the teachings Lang et al. and Hargarty to arrive at a solid stick insecticidal composition comprising honey and chlorpyrifos used in a method of controlling cockroaches. Hagarty teaches that cockroaches are sweet-loving insects and are attracted to honey. Further, Hagarty teaches that chlorpyrifos is an insecticide that is well known in the art. One would have been motivated to make this combination in order to receive the expected benefit of having a solid stick insecticidal composition that specifically attracts cockroaches due to the presence of the honey component. Therefore, given the state of the art as evidenced by the teachings of the cited references, and absent any evidence to the contrary, there would have been a reasonable expectation of success in combining the teachings of the cited references to form a solid stick insecticidal composition.

The teachings of Lang et al. Emerson are directed to insecticidal compositions. Therefore, it would have been *prima facie* obvious to one of ordinary skill in the art at

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the time of the invention to combine the teachings Lang et al. and Emerson to arrive at a solid stick insecticidal composition comprising preservatives and antioxidants used in a method of controlling cockroaches. Emerson teaches that an antioxidant (i.e., preservative) component can included in a pesticidal composition to increase product shelf life, inhibit decomposition of the active compound or improve the stability of the controlling effect when the composition is applied to hosts infested with the targeted pests (column 8, lines 31-36). One would have been motivated to make this combination in order to receive the expected benefit of having a solid stick insecticidal composition that has an extended shelf life, is not decomposed over time and is stable when applied to hosts infested with the targeted pests. Therefore, given the state of the art as evidenced by the teachings of the cited references, and absent any evidence to the contrary, there would have been a reasonable expectation of success in combining the teachings of the cited references to form a solid stick insecticidal composition.

The teachings of Lang et al. and Greene are directed to solid stick insecticidal compositions. Greene teaches that the insecticide stick applicator and method of the their invention is characterized by high effectiveness against crawling insects, such as *Blattella germanica* (German cockroach) and *Periplaneta americana* (American cockroach); long residual activity; ease and convenience of use; suitability for application to any surface; ease of accurate and exact placement; coverage of a large surface area with a uniform, thin, transparent film; and storage stability. One would have been motivated to make this combination in order to receive the expected benefit

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of having a solid stick insecticidal composition has storage stability as well as the other aforementioned advantages. Further, in view of *In re Kerkhoven*, 205 USPQ 1069 (C.C.P.A. 1980), it is *prima facie* obvious to combine two or more compositions each of which is taught by prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in prior art, thus claims that requires no more than mixing together two conventional solid stick insecticidal compositions set forth *prima facie* obvious subject matter.

With regards to the limitations of instant claims **1, 39-43 and 57-59**, Lang et al. do not teach the claimed setting point, melting point or the penetration hardness of the instant claimed composition. However, Lang et al. do teach that microcrystalline wax has a melting point 155-165 degrees Fahrenheit (i.e., 68.3-78.3 degrees Celsius) and a penetration of 25 maximum at 77 degrees Fahrenheit, 45 maximum at 100 degrees Fahrenheit and 110 maximum at 110 degrees Fahrenheit (column 3, lines 15-33). Further, the U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise.

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With regards to newly added claims **60-63** which require between 1-85% food material, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teaching of Lang et al. One skilled in the art at the time the invention was made would have been motivated to use the aforementioned components because the amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient amounts would have been obvious at the time of applicant's invention.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the teachings of the cited references, especially in the absence of evidence to the contrary.

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on July 25, 2011, with respect to the 103 rejection of rejection of claims 1-15,19-21,23,27-45 and 48-59 under 35 U.S.C. 103(a) as being unpatentable over Lang et al. (US Patent 3,162,575) in view of Duffey et al.

(3,826,232), Hagarty (US Patent 5,094,853), Emerson (US Patent 6,124,275) and Greene (US 4,473,582) have been fully considered but they are not persuasive.

Applicant argues that a prima facie case of obviousness cannot be established because the prior art references fail to teach or suggest all of the claimed elements. Applicant argues that a skilled artisan would not be motivated to modify Lang to achieve the present invention. Applicant argues that the insecticide of the present invention has a penetration hardness between 0.1 and 5 mm and that the Examiner expects that Lang's composition would exhibit a penetration hardness within the claimed range. However, Applicant argues that the data contained in the instant specification proves otherwise. In particular, Applicant points to Example 3 on pages 27 and 28 of the specification compared a composition according to the present invention against a composition according to Lang which formulation was obtained directly from Lang's specification. The data indicates that the composition according to the present invention exhibited an average penetration hardness of 2.12mm. Contrarily, Applicant argues that the composition of Lang exhibited a penetration hardness of 5.59mm, far outside the claimed range. Accordingly, Applicant argues that Lang does not teach all

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of the limitations of the presently claimed invention. However, the Examiner is not persuaded by Applicant's argument because the instant claims drawn to a solid stick insecticidal composition comprising a base, an insecticide and at least 60 wt% food materials, the composition having a penetration hardness of from 0.1 to 5mm. Example 3 of the instant specification discloses a stick composition comprising 60 wt% microcrystalline to give a melting point of 71 °C 5 as required by Lang, 20 wt% medium viscosity oil and 20 wt% powdered sucrose. However, Example 3 does not comprise an insecticide component as instantly claimed. Further, Lang et al. also teaches that their insecticide bar contains an attractant in combination with the insecticide and should include .25- 1.25% active ingredient, from 40-80% microcrystalline wax, 10-60% medium viscosity oil and 0 to 50% attractant (food material of instant application, see column 2, lines 15-25, 36-54 and 64-69). Therefore, the data presented in Example 3 is not a true side by side comparison to the instantly claimed invention and although Lang et al. do not teach the claimed setting point, melting point or the penetration hardness of the instant claimed composition, Lang et al. do teach that microcrystalline wax has a melting point 155-165 degrees Fahrenheit (i.e., 68.3-78.3 degrees Celsius) and a penetration of 25 maximum at 77 degrees Fahrenheit, 45 maximum at 100 degrees Fahrenheit and 110 maximum at 110 degrees Fahrenheit (column 3, lines 15-33). The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the

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prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise. With regards to newly added claims 60-63 which require between 1-85% food materials, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teaching of Lang et al. One skilled in the art at the time the invention was made would have been motivated to use the aforementioned components because the amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient amounts would have been obvious at the time of applicant's invention.

Furthermore, Applicant argues that in order to lower the penetration hardness in Lang, a skilled artisan would have to lower the amount of microcrystalline wax in the formulation to below at least the required 40 wt.%. Applicant argues that a high wax content (40-80 wt. %) is necessary in order for Lang's composition to maintain its position on the animal's face without migrating into the eyes or mouth of the animal. Applicant argues that a high hardness keeps the composition from migrating away from the original area of placement and lowering the penetration hardness would therefore increase the likelihood of migration, thereby rendering Lang unsuitable for its intended

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use. However, the Examiner is not persuaded by Applicant's arguments because the instant claims requires **at least** 10% of a base material (i.e., microcrystalline wax). Lang et al. teach 40-80% microcrystalline wax. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teaching of Lang et al. One skilled in the art at the time the invention was made would have been motivated to use the aforementioned components because the amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient amounts would have been obvious at the time of applicant's invention.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

Conclusion

No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney A. Brown whose telephone number is 571-270-3284. The examiner can normally be reached on 9:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fereydoun Sajjadi can be reached on 571-272-3311. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown
Patent Examiner
Technology Center 1600
Group Art Unit 1617

/Anoop Singh/
Primary Examiner, Art Unit 1632